

[Time: 3.00 Hrs]

[ Marks: 75 ]

Please check whether you have got the right question paper.

**Instructions :**

1. Q1 (20 marks) & Q8 (15 marks) are compulsory.
2. Attempt Any Four (40 marks) out of Q2, Q3, Q4, Q5, Q6 and Q7.
3. Students have to attempt any four out of the remaining six questions and within each question; students have to attempt any one out of two sub – questions. Each sub – question would carry 10 Marks.
4. Figures to the right indicate full marks.
5. Draw neat diagrams wherever necessary.

**Q.1 Read and attempt the following:****(A) Multiple choice question****10 Marks**

- i. Which of the following is NOT a common underlying asset for derivatives?
  - a. Stocks
  - b. Bonds
  - c. Real estate properties
  - d. Commodities
- ii. A call option gives the holder the right to:
  - a. Buy the underlying asset.
  - b. Sell the underlying asset.
  - c. Hold the underlying asset.
  - d. Trade the underlying asset.
- iii. The premium in an options contract refers to:
  - a. The price of the underlying asset.
  - b. The exercise price.
  - c. The cost to purchase the option.
  - d. The interest rate.
- iv. Which of the following strategies is used to protect an investment from a decline in market value?
  - a. Covered call
  - b. Protective put
  - c. Naked call
  - d. Short selling
- v. A futures contract is an agreement to:
  - a. Buy or sell an asset immediately at the current price.
  - b. Buy or sell an asset at a predetermined price in the future.
  - c. Exchange one asset for another.
  - d. Hedge against interest rate changes.
- vi. In derivatives trading, the term 'margin' refers to:
  - a. The total value of the contract.
  - b. The profit made from the trade.
  - c. The amount of money required to open and maintain a position.

- d. The difference between the buying and selling price.
- vii. Which type of risk management involves taking an offsetting position in a related security?
  - a. Speculation
  - b. Arbitrage
  - c. Hedging
  - d. Leveraging
- viii. What is the main advantage of using options for risk management?
  - a. Unlimited profit potential
  - b. Limited risk exposure
  - c. Guaranteed returns
  - d. Reduced transaction costs
- ix. In options terminology, the 'expiration date' is:
  - a. The date the option is purchased.
  - b. The date the underlying asset is delivered.
  - c. The last date on which the option can be exercised.
  - d. The date the option is sold.
- x. Which of the following is a characteristic of an option contract?
  - a. It obligates the holder to buy or sell the asset.
  - b. It gives the holder the right to buy or sell the asset.
  - c. It requires the holder to exchange one asset for another.
  - d. It mandates a fixed interest rate payment.

**B) True or false.**

**10 Marks**

- i. A derivative is a financial instrument whose value is derived from the value of an underlying asset.
- ii. Options are a type of derivative that give the holder the obligation to buy or sell an asset at a predetermined price.
- iii. A put option gives the holder the right to sell an underlying asset at a specified price.
- iv. Futures contracts are standardized agreements traded on exchanges to buy or sell assets at a future date at a predetermined price.
- v. Hedging with derivatives aims to completely eliminate all financial risks.
- vi. The premium in an options contract is the cost paid by the buyer to the seller for the option.
- vii. A call option gives the holder the right, but not the obligation, to buy an underlying asset at a specified price.
- viii. In derivatives trading, margin refers to the profit made from the trade.
- ix. An American option can be exercised at any time before or on its expiration date.
- x. Using options for risk management can help limit potential losses.

**Q.2 Attempt any One of the following:**

**10 Marks**

- a) Describe Options Greeks in details.
- b) explain relationship between Delta and gamma for premium valuation with example.

**Q.P. Code: 00005428**

**Q.3 Attempt any One of the following:**

**10 Marks**

- Explain the concept of derivatives and discuss their importance in financial markets. Include examples of different types of derivatives and their uses.
- Differentiate between forward contracts and futures contracts.

**Q.4 Attempt any One of the following:**

**10 Marks**

- Explain the concept of Delta in options trading. How does Delta affect an options position? Provide examples to illustrate your explanation.
- Define Theta and describe its impact on options pricing. How does Theta affect the value of options as expiration approaches? Provide examples to support your answer.

**Q.5 Attempt any One of the following:**

**10 Marks**

- Miss. Thakurain bought Nifty 24100 Call option of July 2024 expiry at Rs. 140. What will be the break even point. Explain with pay off chart.
- Miss. Chikki sell Reliance 3000 Put option of June, 2024 expiry at Rs. 52. What will be profit and loss on if market settle with three different price respectively 3010, 2922, 2980.

**Q.6 Attempt any One of the following:**

**10 Marks**

- Mr. Rakesh expects a significant price movement in Company XYZ but is unsure of the direction. The stock is currently trading at ₹750. The trader decides to implement a straddle strategy by buying both a call and a put option with a strike price of ₹750, both expiring in one month. Explain the straddle strategy and calculate the total cost of the strategy. Determine the profit or loss at expiration if the stock price moves to ₹800 or ₹700. Include a discussion on the breakeven points for this strategy.
- Explain types of Derivatives in details.

**Q.7 Attempt any One of the following:**

**10 Marks**

- Explain calendar spread strategies with examples.
- What is Time value in option premium? How does time value effect on ATM, ITM and OTM?

**Q.8 Write short notes on Any three from the following:**

**15Marks**

- Intrinsic value
- Vega
- Strangle strategies
- Open Interest
- In the Money

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